

## ABSTRACT OF THE DISCLOSURE

A scanning apparatus and method for generating computer models of three-dimensional objects comprising means for scanning the object to capture data from a plurality of points on the surface of the object so that the scanning means may capture  
5 data from two or more points simultaneously, sensing the position of the scanning means, generating intermediate data structures from the data, combining intermediate data structures to provide the model; display, and manually operating the scanning apparatus. The signal generated is structured light in the form of a stripe or an area from illumination sources such as a laser diode or bulbs which enable data for the position and color of the  
10 surface to be determined. The object may be on a turntable and may be viewed in real time as rendered polygons on a monitor as the object is scanned.